

REMARKS

Favorable reconsideration is respectfully requested in light of the above amendments and the following remarks. The Title has been amended to correct a typographical error. The specification and claims have been amended to correctly refer to pH, rather than PH. Claims 38-63 have been withdrawn as being directed to a non-elected invention. No new matter has been entered as a result of these amendments.

Restriction Requirement

The Examiner has required restriction between Group I (claims 1-37) and Group II (claims 38-63). Applicant hereby affirms the provisional election of Group I for examination at this time. This election is made without traverse. The Office Action states that the provisional election was made with traverse, which is believed to be in error.

Indefiniteness Rejections

Applicant respectfully traverses the Examiner's rejection of claim 12 under 35 U.S.C. §112, second paragraph, as indefinite. In particular, the Examiner has asserted that it is unclear what is being positively claimed. One of skill in the art, having read and understood the instant specification, would understand that claim 12 recites that the detector is adapted and configured to detect (or be sensitive to) excitation fluorescence while being at least substantially blind (or not sensitive) to reflective energy. Applicant believes that claim 12 is definite as originally filed. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 17-18 under 35 U.S.C. §112, second paragraph, as indefinite. In particular, the Examiner has asserted that it is unclear what "at least some" of the pixels of the array are sensitive. Claim 17 recites that "at least some" of the pixels of the array of pixels are sensitive to a plurality of wavelengths, while claim 18 recites that "at least some" of the pixels of the array of pixels are sensitive to a single wavelength band. One of skill in the art, having read and understood the instant specification, will clearly understand that the detector may comprise an array of pixels (as recited in claim 16). Some of the pixels (e.g. at least some) of the pixels of the array of pixels may be sensitive to

light within particular wavelengths, while others of the pixels within the array may not be sensitive to the particular wavelengths. Applicant believes that claims 17 and 18 are definite as originally filed. Favorable reconsideration is respectfully requested.

Obviousness Rejections

Applicant respectfully traverses the Examiner's rejection of claims 1-2, 7, 10, 13 and 22 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679. Turning first to claim 1, which recites:

1. (original) A particle analyzer, comprising:
 - a particle concentrator adapted to collect and concentrate particles found within an aerosol;
 - a sample collection surface adapted to accept particles provided by the particle concentrator;
 - an energy source that provides energy that is adapted to induce fluorescence in the particles held by the sample collection surface; and
 - a detector adapted to detect the induced fluorescence.

As can be seen, one of the elements of claim 1 (and hence claims 2, 7-10, 13 and 22 depending therefrom) is that the particle analyzer includes a sample collection surface that is adapted to receive particles that are provided by the particle concentrator. The Examiner has asserted that Wood discloses "sample collection on the surface". However, claim 1 recites a "sample collection surface", not "sample collection on the surface". Wood is directed to detecting particles as they flow through an orifice (see, for example, Wood, Abstract, Figures 2-5). As such, Wood clearly does not describe or suggest a "sample collection surface" that is adapted to accept particles provided by a particle concentrator, as disclosed in the present specification and as recited in claim 1.

Moreover, Wood does not appear to teach or suggest a particle concentrator that is adapted to collect and concentrate particles found within an aerosol. If the Examiner maintains this rejection, the Applicant respectfully requests that the Examiner specifically point out where in Wood a particle concentrator can be found, and more specifically, "a particle concentrator adapted to collect and concentrate particles found within an aerosol".

Claim 1 also recites an energy source that provides energy that is adapted to induce fluorescence in the particles held by the sample collection surface. Since Wood is directed to detecting particles that are flowing through an orifice, Wood cannot be seen as teaching or suggesting the claimed sample collection surface, and more specifically, a sample collection surface that holds particles. In Wood, the particles flow through an orifice, and are clearly not held by any sample collection surface, as recited in claim 1.

It is axiomatic that to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure (see, MPEP 2142). In the present case, Wood clearly does not disclose many of the elements of claim 1.

The Examiner relies on Dewhurst to suggest that it would be obvious to detect particles within an aerosol, rather than blood cells or yeast cells. However, and as noted above, Wood is directed to detecting flowing (i.e. moving) particles (regardless of size) that are passing through an orifice. One of skill in the art would not have any reason or motivation to add a sample collection surface, as allegedly disclosed by Dewhurst, to the device disclosed by Wood. Such a drastic alteration would materially change (if not destroy) the functionality of the Wood device, and there would be no reasonable expectation of success. It is axiomatic that such an alteration cannot be considered as being obvious. For at least these reason, the obviousness rejection should be withdrawn. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claim 3 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Higashi, U.S. Patent No. 6,238,085. Claim 1, from which claim 3 depends, is distinguished above as being patentable over Wood and Dewhurst. As Higashi does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to

be clearly patentable over all three references. Claim 3 includes the elements of claim 1 and adds additional elements, and therefore, is also believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claim 4 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, further in view of Higashi, U.S. Patent No. 6,238,085, and further in view of Caron, U.S. Patent No. 5,992,215. Claim 1, from which claim 4 depends, is distinguished above as being patentable over Wood, Dewhurst and Higashi. As Caron does not remedy the noted shortcomings of Wood, Dewhurst and Higashi, claim 1 is believed to be clearly patentable over all four references. Claim 4 includes the elements of claim 1 and adds additional elements and therefore is believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claim 23 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, further in view of Higashi, U.S. Patent No. 6,238,085, and further in view of Caron, U.S. Patent No. 5,992,215. Claim 1, from which claim 23 depends, is distinguished above as being patentable over Wood, Dewhurst and Higashi. As Caron does not remedy the noted shortcomings of Wood, Dewhurst and Higashi, claim 1 is believed to be clearly patentable over all four references. Claim 23 includes the elements of claim 1 and adds additional elements and therefore is believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 5-6 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, further in view of Higashi, U.S. Patent No. 6,238,085, further in view of Caron, U.S. Patent No. 5,992,215, and further in view of Haas, U.S. Patent No. 4,147,515. Claim 1, from which claims 5 and 6 depend, is distinguished above as being patentable over Wood, Dewhurst, Higashi and Caron. As Haas does not remedy the noted shortcomings of Wood, Dewhurst, Higashi and Caron, claim 1 is believed to be clearly patentable over all five references. Claims 5 and 6 include the elements of claim 1 and add additional elements and

therefore are believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 8-9 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Peeters, U.S. Patent No. 6,762,056. Claim 1, from which claims 8 and 9 depend, is distinguished above as being patentable over Wood and Dewhurst. As Peeters does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to be clearly patentable over all three references. Claims 8 and 9 include the elements of claim 1 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 11 and 14 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Zarling, U.S. Patent No. 5,674,698. Claim 1, from which claims 11 and 14 depend, is distinguished above as being patentable over Wood and Dewhurst. As Zarling does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to be clearly patentable over all three references. Claims 11 and 14 include the elements of claim 1 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 15-16 and 19-21 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Carter, U.S. Patent No. 5,771,094. Claim 1, from which claims 15-16 and 19-21 depend, is distinguished above as being patentable over Wood and Dewhurst. As Carter does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to be clearly patentable over all three references. Claims 15-16 and 19-21 include the elements of claim 1 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 24-25 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Koestler, U.S. Patent No. 5,520,881. Claim 1, from which claims 24-25 depend, is distinguished above as being patentable over Wood and Dewhurst. As Koestler does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to be clearly patentable over all three references. Claims 24-25 include the elements of claim 1 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claim 26 under 35 U.S.C. §103(a) as unpatentable over Wood, U.S. Patent No. 6,614,215, in view of Dewhurst, U.S. Patent No. 4,926,679, and further in view of Javan, U.S. Patent No. 4,651,010. Claim 1, from which claim 26 depends, is distinguished above as being patentable over Wood and Dewhurst. As Javan does not remedy the noted shortcomings of Wood and Dewhurst, claim 1 is believed to be clearly patentable over all three references. Claim 26 includes the elements of claim 1 and adds additional elements and therefore is believed to be clearly patentable for at least the same reasons as claim 1. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 27 and 34-35 under 35 U.S.C. §103(a) as unpatentable over Haas, U.S. Patent No. 4,147,515, in view of Caron, U.S. Patent No. 5,992,215. Claim 27 recites:

27. (original) A particle analyzer device, comprising:
a substrate;
a sample collection surface disposed over the substrate for collecting particles provided to the particle analyzer device; and
temperature adjusting means thermally coupled to the sample collection surface for adjusting the temperature of the sample collection surface.

As can be seen, claim 27 (and hence claims 34-35 depending therefrom) recites a particle analyzer device that includes: a substrate; a sample collection surface disposed over the substrate for collecting particles provided to the particle analyzer device; and temperature adjusting means thermally coupled to the sample collection surface for adjusting the temperature of the sample collection surface. Neither Haas nor Caron describes or suggests a particle analyzer device, and

more specifically, a particle analyzer device that includes: a substrate; a sample collection surface disposed over the substrate for collecting particles provided to the particle analyzer device; and temperature adjusting means thermally coupled to the sample collection surface for adjusting the temperature of the sample collection surface.

Instead, both Haas and Caron are directed to gas sensors. One of skill in the art, having read the instant specification, would understand that the claimed invention is directed to detecting particles such as particles that may be present within an aerosol. Such particles are not considered to be gases. As neither Haas nor Caron describes or suggests a particle analyzer device as claimed, the combination cannot render claim 27 obvious. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 28-30 and 32-33 under 35 U.S.C. §103(a) as unpatentable over Haas, U.S. Patent No. 4,147,515, in view of Caron, U.S. Patent No. 5,992,215, and further in view of Higashi, U.S. Patent No. 6,238,085. Claim 27, from which claims 28-30 and 32-33 depend, is distinguished above as being clearly patentable over Haas and Caron. As Higashi does not remedy the noted shortcomings of Haas and Caron, claim 27 is believed to be clearly patentable over all three references. Claims 28-30 and 32-33 include the elements of claim 27 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 27. Favorable reconsideration is respectfully requested.

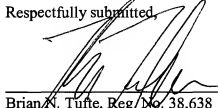
Applicant respectfully traverses the Examiner's rejection of claim 31 under 35 U.S.C. §103(a) as unpatentable over Haas, U.S. Patent No. 4,147,515, in view of Caron, U.S. Patent No. 5,992,215, further in view of Higashi, U.S. Patent No. 6,238,085, and further in view of Bernstein, U.S. Patent No. 6,388,789. Claim 27, from which claim 31 depends, is distinguished above as being patentable over Haas, Caron and Higashi. As Bernstein does not remedy the noted shortcomings of Haas, Caron and Higashi, claim 27 is believed to be clearly patentable over all four references. Claim 31 includes the elements of claim 27 and adds additional elements and therefore is believed to be clearly patentable for at least the same reasons as claim 27. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 36-37 under 35 U.S.C. §103(a) as unpatentable over Haas, U.S. Patent No. 4,147,515, in view of Caron, U.S. Patent No. 5,992,215, and further in view of Peeters, U.S. Patent No. 6,762,056. Claim 27, from which claims 36-37 depend, is distinguished above as being patentable over Haas and Caron. As Peeters does not remedy the noted shortcomings of Haas and Caron, claim 27 is believed to be clearly patentable over all three references. Claims 36-37 include the elements of claim 27 and add additional elements and therefore are believed to be clearly patentable for at least the same reasons as claim 27. Favorable reconsideration is respectfully requested.

In view of the amendments and comments presented herein, favorable reconsideration in the form of a Notice of Allowance is respectfully requested. If a teleconference is deemed of value, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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